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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,550	12/29/2000	Ritesh Trivedi	42390P10725	1451

7590 03/22/2002
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EXAMINER

MAI, SON LUU

ART UNIT PAPER NUMBER

2818

DATE MAILED: 03/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,550

Applicant(s)

TRIVEDI ET AL.

Examiner

Son Mai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement papers filed 06-18-01 and 01-09-02 have been considered. The patent applications will not be printed since they are not published.

Specification

2. The disclosure is objected to because of the following informalities: the title of the invention in the specification "Drain bias for non-volatile memory" does not agree with that of in the declaration "Kicker For Non-Volatile Memory Drain Bias". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by La Placa (U.S. Patent 6,097,633).

Regarding claim 1, La Placa discloses an apparatus and method for providing a kicker function for a non-volatile memory drain bias as in the instant invention. La Placa

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teaches a method comprising: electrically connecting a first kicker device (26 in figure 2) to a first drain bias (transistor 6) for a first non-volatile memory cell (connected to bit line BL), wherein said first kicker device comprises a high performance transistor (26); enabling said first kicker device (by signal ENSA); and pulling a voltage of said first drain bias towards a voltage potential of a supply source (Vcc).

Regarding claim 2, La Placa discloses that the first non-volatile memory cell is a flash memory cell (column 1, lines 5-10).

Regarding claim 3, La Placa also teaches that the high performance transistor (26) is a p-channel semiconductor device (column 3, line 4).

Regarding claim 4, La Placa shows in figure 4, the first kicker device (26) is enabled prior to sensing the contents of the first non-volatile memory cell.

Regarding claim 5, La Placa also teaches a second kicker device (27 in figure 2) electrically connected to a second drain bias (transistor 7) for a second non-volatile memory cell (connected to reference bit line BL REF). The first kicker device (26) and the second kicker device (27) pull a voltage of a sense node (MATS) for said first non-volatile memory cell and a voltage of a reference node (REFS) for said second non-volatile memory cell towards the same voltage potential (Vcc).

Regarding claim 6, La Placa's figure 2 shows the first drain bias (26) comprises a cascode amplifier.

Claims 7-20 claim an apparatus similar to that of claims 1-6; therefore they are rejected on the same ground.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yero (U.S. Patent 5,986,937) and Conte et al. (U.S. Patent 6,320,808) teach drain bias circuits for non-volatile memory devices .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son Mai whose telephone number is 703-305-3497.

The examiner can normally be reached on 7:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 703-308-4910. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

03-19-02



Son Mai
Examiner
Art Unit 2818